

GUARDIAN® 306 EZ-FLO®

Garlock GUARDIAN® 306 EZ-FLO® spool-type expansion joints feature an FEP lining that is fused to the body of the expansion joint.

The GUARDIAN® 306 EZ-FLO® is designed for the chemical processing and pulp & paper industries, where its ability to resist corrosive attack at normal or elevated temperatures and pressures is unequaled.

Benefits

- FEP liner is non-contaminating and suits a wide range of applications
- Flowing arch design prevents media buildup and reduces turbulence and vibration
- 250 psig (17 bar) pressure rating ensures longer service life and consolidates inventory
- Liner extends to outer diameter of flange to prevent chemical attack on expansion joint flanges
- Mechanically bonded liner resists delamination

Design

- **Tube**
 - Seamless FEP lining extends to the outer edge of the flange; completely fused to the expansion joint body
 - Incorporates a flowing arch design to resist product build-up
- **Body**
 - Impregnated nylon tire cord fabric cross-wrapped in bias-ply construction
- **Cover**
 - Homogeneous layer of chlorobutyl elastomer extends to the outside edge of the flange
 - Coated with a weather-resistant protectant
- **Special Designs**
 - Non-standard face-to-face dimensions (pressure / vacuum ratings may be affected)
 - Non-standard drill patterns
 - Blind flanges (no drilling)
 - Lightweight designs available for low pressure and non-metallic pipe applications
 - Available with GYLON® 3545 gasket face for raised face flange connections



Pressure and Vacuum Rating*

	Pipe I.D.		Pressure		Vacuum	
	Inch	mm	psi	bar	in. Hg	mm Hg
Style 306 EZ-FLO®	3-10	75-250	250	17	26	650
	12	300	250	17	17	425
	14	350	130	9	17	425
	16-20	400-500	110	8	15	375

* Pressure and vacuum ratings are for neutral FF dimensions only. Consult Garlock for alternate sizes and corresponding pressure/vacuum ratings. Consult Garlock for larger sizes. Metric sizes available on request.

Listed pressure ratings are based on a 4:1 safety factor at max. design temp.

Temperature

	Max. Temp.
Chlorobutyl/nylon tire cord.....	+250°F (+120°C)
Chlorobutyl/Kevlar** tire cord with EPDM cover.....	+300°F (+150°C)

** Kevlar is a registered trademark of DuPont.

WARNING:

Properties/applications shown throughout this brochure are typical. Your specific application should not be undertaken without independent study and evaluation for suitability. For specific application recommendations consult Garlock. Failure to select the proper sealing products could result in property damage and/or serious personal injury.

Performance data published in this brochure has been developed from field testing, customer field reports and/or in-house testing.

While the utmost care has been used in compiling this brochure, we assume no responsibility for errors. Specifications subject to change without notice. This edition cancels all previous issues. Subject to change without notice.

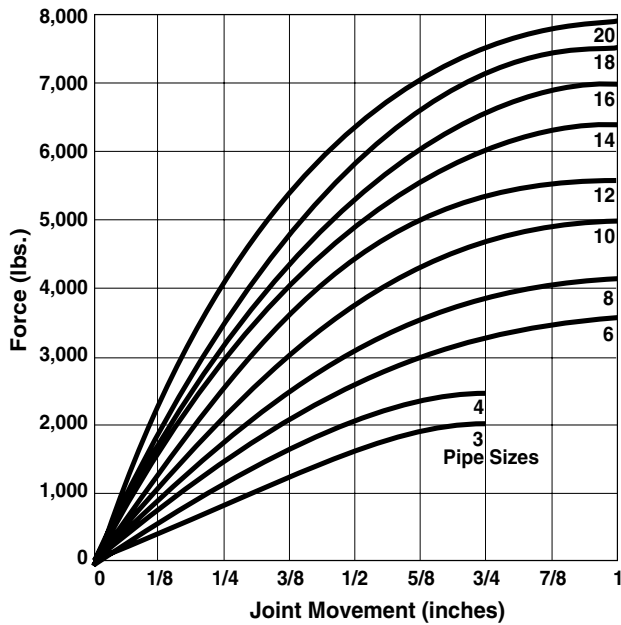
GARLOCK is a registered trademark for packings, seals, gaskets, and other products of Garlock.

Movement Capabilities

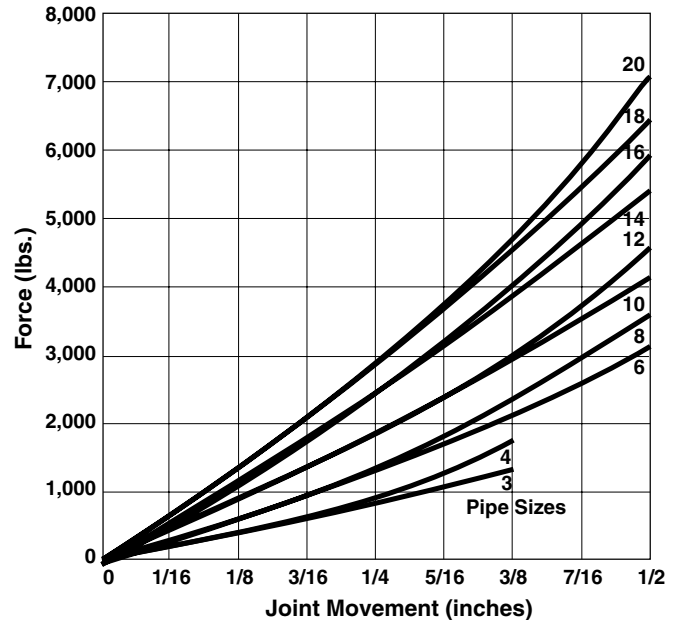
Type Movement	Pipe I.D.		Movement	
	Inch	mm	Inch	mm
Compression	3-4	75-100	3/4	19
	6-20	150-500	1	25
Elongation	3-4	75-100	3/8	10
	6-20	150-500	1/2	12
Lateral	3-4	75-100	1/2	12
	6-20	150-500	1/2	12

Type Movement	Pipe I.D.		Movement Degrees
	Inch	mm	
Angular	3-4	75-100	8
	6-8	150-200	5
	10-12	250-300	4
	14-16	350-400	2.5
Torsional	18-20	450-500	2
	3-12	75-300	3
	14-16	350-400	2
	18-20	450-500	1

Compression



Elongation



Fully Tested and Field Engineered

All Garlock expansion joint styles have been rigorously lab- and field-tested, and engineered to ensure long life and reliable service.

Control Units

Control units must be used to protect expansion joints from excessive movement if piping is not properly anchored. See page B-19 for information.

Notes:

1. Sizes 3"-20" indicate nominal ANSI pipe sizes.
2. 3" and 4" I.D. have 3/4" maximum compression and 3/8" maximum elongation.
3. Forces to compress and elongate are based on zero pressure conditions and ambient temperatures in the pipeline.
4. To convert force in pounds to kilograms, divide by 2.205.
5. Metric sizes available by special request.